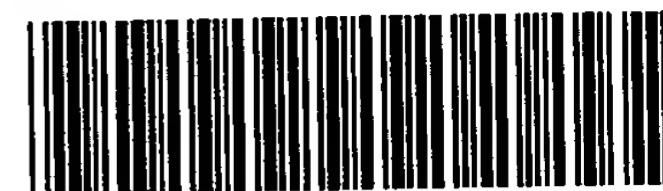


*OS 90
0606*

10

ENTERED
See page 6



OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/989,339

DATE: 06/10/2002
TIME: 15:44:01

Input Set : A:\BB-1067USCNT SEQ LST corrected.txt
Output Set: N:\CRF3\06102002\I989339.raw

3 <110> APPLICANT: Falco, Saverio Carl
 4 Famodu, Layo
 5 Rafalski, Jan A.
 6 Ramaker, Michael
 7 Tarczynski, Mitchell C.
 8 Thorpe, Catherine
 10 <120> TITLE OF INVENTION: PLANT METHIONINE SYNTHASE GENE AND METHODS FOR INCREASING
 THE
 11 . . . METHIONINE CONTENT OF THE SEEDS OF PLANTS
 13 <130> FILE REFERENCE: BB-1067-B
 C--> 15 <140> CURRENT APPLICATION NUMBER: US/09/989,339
 C--> 16 <141> CURRENT FILING DATE: 2002-05-31
 18 <150> PRIOR APPLICATION NUMBER: 08/703,829
 19 <151> PRIOR FILING DATE: 1996-08-27
 21 <160> NUMBER OF SEQ ID NOS: 55
 23 <170> SOFTWARE: Microsoft Office 97
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 2639
 27 <212> TYPE: DNA
 28 <213> ORGANISM: Zea mays
 30 <400> SEQUENCE: 1
 31 caccacccac ctcccactcc cagttcaccc cgctcgccctc ggcgccadca ctccctcgcc 60
 32 cccggcgcta ctcccccgct ccacggtcca agaaaagatg gcgtccata ttgttggata 120
 33 ccctcgcatg ggccccaaaga gggagctcaa gttgccttg gagtctttct gggatggaa 180
 34 gagcagcgcc gaggatttg agaaagttgc cactgacctg aggtcttagca tctggaagca 240
 35 aatgtcagaa gctgggatca agtacattcc cagcaatacc tcgtcgtaact acgaccagg 300
 36 tcttgataacc acggccatgc ttggcgctgt cccagagcgc tactcttggc ctggaggcga 360
 37 gattggcttg agcacctact tctctatggc cagggaaat gccactgtcc ctgccatgg 420
 38 gatgaccaag tggtttggata caaaactacca ctttattgtc cctgaacttg gtccaagcac 480
 39 caagttcaca tacgcttctc acaaggctgt ttctgagttac aaggaggcaa aggcgctcgg 540
 40 cattgataca gtcccagtgc ttgttggacc agtctcatac ttgctcctct ctaagcctgc 600
 41 caagggtgtg gaaaaatctt tctctcttct ttcacttctt ggttagcatcc ttcccattcta 660
 42 caaggagggtt gttgctgagc tgaaggcagc tgggtgctca tggattcagc ttgatgagcc 720
 43 tacccttgtt aaagaccttg atgctcacga attggccgca ttctcttcag catatgctga 780
 44 actggagtca tcgttctctg gattgaatgt gcttatcagc acatacttcg ctgatattcc 840
 45 tgctgagtcc tacaagaccc tcacatcatt gagtgggtgt actgcttacg gtttcgatct 900
 46 tatccgtgga gccaagaccc ttgatcttat caggagcagc ttcccctctg ggaagtacct 960
 47 cttcgctgggt gttgttagatg gacgcaacat ttgggctgat gatcttgcg catctcttag 1020
 48 cactcttcat tctcttgagg ctgttgcgtgg caaggacaaa cttgtgggtgt caacctcctg 1080
 49 ctcactgatg cacaccgctg ttgaccttgtt aaatgagact aagctggatg atgagattaa 1140
 50 gtcatggctt gcatttgctg cccaaaaggt tggtaggtt aatgcccttgc ccaaggctt 1200
 51 ggcaggccaa aaggatgagg tctactttgc agccaatgtc gctgctcagg cctcaaggag 1260
 52 atcatcgccc aggtgacaa acgaggaggt ccagaaggct gcagctgctt tgagggatc 1320
 53 tgaccaccgc cgttctacca ctgttctgc tagattggat gctcagcaga aaaagctcaa 1380

RAW SEQUENCE LISTING DATE: 06/10/2002
PATENT APPLICATION: US/09/989,339 TIME: 15:44:01

Input Set : A:\BB-1067USCNT SEQ LST corrected.txt
Output Set: N:\CRF3\06102002\I989339.raw

54 cttccctgtc cttcccacaa ccacaattgg ttcattccct cagactgtgg aactcaggag 1440
 55 ggttcgccgt gaataacaagg caaagaagat caccgaggac gaatacatca gtgccatcaa 1500
 56 ggaagaaatc agcaaggtcg tcaagatcca agaggagctt gacattgatg tgcttgtca 1560
 57 tggagagcca gagagaaaatg acatgggtga gtacttcgtt gagcaattat ctggtttgc 1620
 58 gttcactgcc aacggatggg tgcaatccta tggatcacgc tgtgtgaagc caccattat 1680
 59 ctacggtgat gtcagccggc cgaacccat gactgtttc tggccaaga tggcacagag 1740
 60 catgaccctt cgtcccatga agggaatgtt gactggtccg gtcacaatcc tcaactggtc 1800
 61 attcgtcagg aacgaccagc ctaggtttga gacatgctac caaatagctc ttgcaatcaa 1860
 62 aaaggaggtt gaggatcttggc aggctgctgg tattcaggtg atccagatcg atgaggcagc 1920
 63 tctaagggag ggtctgccac tacgcaagtc agagcatgca ttctacctgg actgggctgt 1980
 64 ccactcttc aggatcacca actgcggagt ccaggacacc acccagatcc acacccacat 2040
 65 gtgctactcc aacttcaacg acatcatcca ctccatcatc gacatggatg ccgatgttat 2100
 66 cacgatcgag aactcccggt ctgacgagaa gctactgtcc gtctccgtg agggtgtgaa 2160
 67 gtacggagct ggcattggcc ctgggtgtcta cgacatccac tctccctagga ttccctccac 2220
 68 agaggagatc gcagaccgacg tegagaagat gctcgccgtg ttcgacacca acatcctctg 2280
 69 ggtgaaccct gactgtggtc tcaagacacg caagtacacg gaggtcaagc ccgcctgac 2340
 70 caacatggtc tcggccacca agctcatccg caccagctt gccagcgcga aatgaggtcg 2400
 71 tttgatagct ccatggtctg atagcgccga atgagccagt tttttgaat aatttgggtg 2460
 72 ttaccccctg ttccatggtg ttagtggtag gttagcctct cattggtgag atacgcccgtt 2520
 73 tcaagatgtg ttctaagttt ggagtgtgtg tttcccttg ggctatgtt ctgggggtat 2580
 74 gtgtgtgtt tggttataaa cagaaatgaa atatgcagtc ttccaattga aaaaaaaaaa 2639
 76 <210> SEQ ID NO: 2
 77 <211> LENGTH: 765
 78 <212> TYPE: PRT
 79 <213> ORGANISM: Zea mays
 81 <400> SEQUENCE: 2
 82 Met Ala Ser His Ile Val Gly Tyr Pro Arg Met Gly Pro Lys Arg Glu
 83 1 5 10 15
 84 Leu Lys Phe Ala Leu Glu Ser Phe Trp Asp Gly Lys Ser Ser Ala Glu
 85 20 25 30
 86 Asp Leu Glu Lys Val Ala Thr Asp Leu Arg Ser Ser Ile Trp Lys Gln
 87 35 40 45
 88 Met Ser Glu Ala Gly Ile Lys Tyr Ile Pro Ser Asn Thr Ser Ser Tyr
 89 50 55 60
 90 Tyr Asp Gln Val Leu Asp Thr Thr Ala Met Leu Gly Ala Val Pro Glu
 91 65 70 75 80
 92 Arg Tyr Ser Trp Thr Gly Gly Glu Ile Gly Leu Ser Thr Tyr Phe Ser
 93 85 90 95
 94 Met Ala Arg Gly Asn Ala Thr Val Pro Ala Met Glu Met Thr Lys Trp
 95 100 105 110
 96 Phe Asp Thr Asn Tyr His Phe Ile Val Pro Glu Leu Gly Pro Ser Thr
 97 115 120 125
 98 Lys Phe Thr Tyr Ala Ser His Lys Ala Val Ser Glu Tyr Lys Glu Ala
 99 130 135 140
 100 Lys Ala Leu Gly Ile Asp Thr Val Pro Val Leu Val Gly Pro Val Ser
 101 145 150 155 160
 102 Tyr Leu Leu Leu Ser Lys Pro Ala Lys Gly Val Glu Lys Ser Phe Ser
 103 165 170 175
 104 Leu Leu Ser Leu Leu Gly Ser Ile Leu Pro Ile Tyr Lys Glu Val Val

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/989,339

DATE: 06/10/2002
TIME: 15:44:01

Input Set : A:\BB-1067USCNT SEQ LST corrected.txt
Output Set: N:\CRF3\06102002\I989339.raw

116	180	185	190	
118 Ala	Glu	Leu	Lys Ala Ala Gly Ala Ser Trp Ile Gln Leu Asp Glu Pro	
119	195	200	205	
121 Thr	Leu	Val	Lys Asp Leu Asp Ala His Glu Leu Ala Ala Phe Ser Ser	
122	210	215	220	
124 Ala	Tyr	Ala	Glu Leu Glu Ser Ser Phe Ser Gly Leu Asn Val Leu Ile	
125	225	230	235	240
127 Glu	Thr	Tyr	Phe Ala Asp Ile Pro Ala Glu Ser Tyr Lys Thr Leu Thr	
128	245	250	255	
130 Ser	Leu	Ser	Gly Val Thr Ala Tyr Gly Phe Asp Leu Ile Arg Gly Ala	
131	260	265	270	
133 Lys	Thr	Leu	Asp Leu Ile Arg Ser Ser Phe Pro Ser Gly Lys Tyr Leu	
134	275	280	285	
136 Phe	Ala	Gly	Val Val Asp Gly Arg Asn Ile Trp Ala Asp Asp Leu Ala	
137	290	295	300	
139 Ala	Ser	Leu	Ser Thr Leu His Ser Leu Glu Ala Val Ala Gly Lys Asp	
140	305	310	315	320
142 Lys	Leu	Val	Val Ser Thr Ser Cys Ser Leu Met His Thr Ala Val Asp	
143	325	330	335	
145 Leu	Val	Asn	Glu Thr Lys Leu Asp Asp Glu Ile Lys Ser Trp Leu Ala	
146	340	345	350	
148 Phe	Ala	Ala	Gln Lys Val Val Glu Val Asn Ala Leu Ala Lys Ala Leu	
149	355	360	365	
151 Ala	Gly	Gln	Lys Asp Glu Val Tyr Phe Ala Ala Asn Ala Ala Gln	
152	370	375	380	
154 Ala	Ser	Arg	Arg Ser Ser Pro Arg Val Thr Asn Glu Glu Val Gln Lys	
155	385	390	395	400
157 Ala	Ala	Ala	Ala Leu Arg Gly Ser Asp His Arg Arg Ser Thr Thr Val	
158	405	410	415	
160 Ser	Ala	Arg	Leu Asp Ala Gln Gln Lys Lys Leu Asn Leu Pro Val Leu	
161	420	425	430	
163 Pro	Thr	Thr	Ile Gly Ser Phe Pro Gln Thr Val Glu Leu Arg Arg	
164	435	440	445	
166 Val	Arg	Arg	Glu Tyr Lys Ala Lys Lys Ile Thr Glu Asp Glu Tyr Ile	
167	450	455	460	
169 Ser	Ala	Ile	Lys Glu Glu Ile Ser Lys Val Val Lys Ile Gln Glu Glu	
170	465	470	475	480
172 Leu	Asp	Ile	Asp Val Leu Val His Gly Glu Pro Glu Arg Asn Asp Met	
173	485	490	495	
175 Val	Glu	Tyr	Phe Gly Glu Gln Leu Ser Gly Phe Ala Phe Thr Ala Asn	
176	500	505	510	
178 Gly	Trp	Val	Gln Ser Tyr Gly Ser Arg Cys Val Lys Pro Pro Ile Ile	
179	515	520	525	
181 Tyr	Gly	Asp	Val Ser Arg Pro Asn Pro Met Thr Val Phe Trp Ser Lys	
182	530	535	540	
184 Met	Ala	Gln	Ser Met Thr Pro Arg Pro Met Lys Gly Met Leu Thr Gly	
185	545	550	555	560
187 Pro	Val	Thr	Ile Leu Asn Trp Ser Phe Val Arg Asn Asp Gln Pro Arg	
188	565	570	575	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/989,339

DATE: 06/10/2002
TIME: 15:44:01

Input Set : A:\BB-1067USCNT SEQ LST corrected.txt
Output Set: N:\CRF3\06102002\I989339.raw

190	Phe	Glu	Thr	Cys	Tyr	Gln	Ile	Ala	Leu	Ala	Ile	Lys	Lys	Glu	Val	Glu
191							580				585					590
193	Asp	Leu	Glu	Ala	Ala	Gly	Ile	Gln	Val	Ile	Gln	Ile	Asp	Glu	Ala	Ala
194							595				600					605
196	Leu	Arg	Glu	Gly	Leu	Pro	Leu	Arg	Lys	Ser	Glu	His	Ala	Phe	Tyr	Leu
197							610				615					620
199	Asp	Trp	Ala	Val	His	Ser	Phe	Arg	Ile	Thr	Asn	Cys	Gly	Val	Gln	Asp
200							625				630					640
202	Thr	Thr	Gln	Ile	His	Thr	His	Met	Cys	Tyr	Ser	Asn	Phe	Asn	Asp	Ile
203							645				650					655
205	Ile	His	Ser	Ile	Ile	Asp	Met	Asp	Ala	Asp	Val	Ile	Thr	Ile	Glu	Asn
206							660				665					670
208	Ser	Arg	Ser	Asp	Glu	Lys	Leu	Leu	Ser	Val	Phe	Arg	Glu	Gly	Val	Lys
209							675				680					685
211	Tyr	Gly	Ala	Gly	Ile	Gly	Pro	Gly	Val	Tyr	Asp	Ile	His	Ser	Pro	Arg
212							690				695					700
214	Ile	Pro	Ser	Thr	Glu	Glu	Ile	Ala	Asp	Arg	Val	Glu	Lys	Met	Leu	Ala
215							705				710					720
217	Val	Phe	Asp	Thr	Asn	Ile	Leu	Trp	Val	Asn	Pro	Asp	Cys	Gly	Leu	Lys
218							725				730					735
220	Thr	Arg	Lys	Tyr	Thr	Glu	Val	Lys	Pro	Ala	Leu	Thr	Asn	Met	Val	Ser
221							740				745					750
223	Ala	Thr	Lys	Leu	Ile	Arg	Thr	Gln	Leu	Ala	Ser	Ala	Lys			
224							755				760					765
226	<210>	SEQ	ID	NO:	3											
227	<211>	LENGTH:	2443													
228	<212>	TYPE:	DNA													
229	<213>	ORGANISM:	Glycine max													
231	<220>	FEATURE:														
232	<221>	NAME/KEY:	unsure													
233	<222>	LOCATION:	(460)													
234	<223>	OTHER INFORMATION:	n = A, C, G, or T													
236	<220>	FEATURE:														
237	<221>	NAME/KEY:	unsure													
238	<222>	LOCATION:	(2398)													
239	<223>	OTHER INFORMATION:	n = A, C, G, or T													
241	<220>	FEATURE:														
242	<221>	NAME/KEY:	unsure													
243	<222>	LOCATION:	(2442)													
244	<223>	OTHER INFORMATION:	n = A, C, G, or T													
246	<400>	SEQUENCE:	3													
247	ccctcagaag	cgaagaagaa	gccacagaga	accagtctcc	tactctctct	cacccacaag									60	
248	aaaaatggca	tctcacatcg	ttggataccc	ccgcatgggt	cccaagagag	agctcaagtt									120	
249	cgcctcgag	tcttcgtgg	atggcaagag	cagcgccgag	gatttgcaga	aggtaggtgc									180	
250	tgtatctcagg	tcatccatct	ggaaggcagat	ggctgggtct	gggatcaagt	acatccccag									240	
251	caacactttc	tcgttctatg	accagctgct	cgacgccacc	gccaccctcg	gtgccgtccc									300	
252	ccccaggtac	ggctggaccg	gcggcgagat	tggattcgac	acctacttct	ccatggccag									360	
253	aggtaatgct	accgtgcctg	ctatggagat	gaccaagtgg	ttcgacacca	actaccactt									420	
W--> 254	tattgtccct	gaattggccc	ctgatgtgaa	ttcacctan	gcttctcaaa	aggctgttgaa									480	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/989,339

DATE: 06/10/2002
TIME: 15:44:01

Input Set : A:\BB-1067USCNT SEQ LST corrected.txt
Output Set: N:\CRF3\06102002\I989339.raw

255	tgaataacaag	gaggccaagg	cgcttggagt	ggataccatt	cccgtaactcg	ttggccctgt	540										
256	tacatacttg	ttgctctcca	agcctgc当地	gggagtc当地	aaatccttt	cttcctctc	600										
257	tctccttccc	aaggttcttg	ctgtctacaa	ggaagttatt	gctgaccctta	aggcagctgg	660										
258	tgcttcatgg	attcaatttg	atgagcctac	ccttgtcttg	gaccctgaat	ctcacaagtt	720										
259	gcaagcttc	actgacgcat	atgcagaact	tgcacctgct	ttgtctgatc	tgaatgtct	780										
260	tgtttagacc	tactttgctg	acatccctgc	tgaggcgtac	aagaccctca	catctctgaa	840										
261	tggcgtcact	gcatatgggt	ttgatttgg	ccgtggaaacc	catactctg	atttgatcaa	900										
262	gggtggattt	cccagtggaa	aataccttt	tgcggagtg	gttgc当地	ggaacatctg	960										
263	ggccaatgac	cttgctgctt	ctctcaactac	attgcagggt	cttgagggca	ttgtggcaa	1020										
264	agataagctt	gttgtgtcca	cctcctcctc	ccttcttac	actgctttg	atcttggtaa	1080										
265	cgagaccaag	ttggatgacg	agatcaagtc	atggctagca	tttgctgcac	aaaaaattgt	1140										
266	tgaagttAAC	gcattggcta	aggcattgtc	tggcaacaag	gatgtggcct	tcttctctgc	1200										
267	taatgctgca	gctcaggcct	caaggaagtc	ctctccaaga	gtgaccaacg	aggctgtca	1260										
268	gaaggctgct	gctgcattga	agggttcaga	tcatcgccgt	gcaacaaatg	tcagtgccag	1320										
269	actggatgct	caacaaaaga	agctcaacct	tccaaatcctt	ccaaccacca	ctattggatc	1380										
270	cttccctcag	actgtagaac	tgaggagggt	acgcccgtgag	ttcaaggcta	acaagatctc	1440										
271	cgaggaagag	tatgttaagt	caattaagga	ggaaattcgc	aaagttttg	aacttcaaga	1500										
272	agagcttgc	attgtatgttc	ttgttcatgg	agaaccagag	agaaatgata	ttgttggta	1560										
273	cttcggtag	caattgtcag	gctttgcctt	cactgttaat	gggtgggtgc	aatccttatgg	1620										
274	ttcccggtgt	gtgaagccac	caatcatcta	tggtgatgtg	agccgccccaa	agccaatgac	1680										
275	tgtttctgg	tcatctctgg	ctcagagctt	taccaagcgc	ccaatgaagg	gaatgcttac	1740										
276	cggcctgtt	accattctca	actggcctt	tgttagaaat	gaccaaccta	gatctgagac	1800										
277	cacctaccag	attgcttgg	ctatcaagga	cgaagtggag	gaccttggaa	aggctggcat	1860										
278	cactgttac	caaattgtatg	aagctgctt	gagagagggt	ctgccactga	gaaatcaga	1920										
279	acaagctcac	tacttggact	gggctgtcca	tgccttcaga	atcaccaatg	ttggtgca	1980										
280	ggataccact	cagatccaca	cccacatgtg	ctactccaa	ttcaacgaca	tcatccactc	2040										
281	catcatcgac	atggacgctg	atgttatcac	cattgagaac	tctcgctccg	atgagaagct	2100										
282	cctgtcagtc	ttccgtgaag	gtgtgaagta	ttgtgttgg	attggccctg	gtgtctatga	2160										
283	catccactcc	ccaagaatac	caccaactga	agaaatcgct	gacagaatca	ataagatgct	2220										
284	tgcagtgctc	gagaagaaca	tcttgggtt	caaccctgac	tgtgtctca	agacccgcaa	2280										
285	gtacactgaa	gtgaagccgc	cctcacaaaa	catggttgcc	gcagcaaaac	tcatccgtt	2340										
W--> 286	cgaacttgcc	aagtgaatgg	tataagaaag	tagaatctac	aagtcaatg	ggtccgcntt	2400										
W--> 287	taaaatacac	caaagaaaaa	ttttcaaaaat	gggttggta	ana		2443										
289	<210>	SEQ ID NO:	4														
290	<211>	LENGTH:	763														
291	<212>	TYPE:	PRT														
292	<213>	ORGANISM:	Glycine max														
294	<220>	FEATURE:															
295	<221>	NAME/KEY:	UNSURE														
296	<222>	LOCATION:	(132)														
297	<223>	OTHER INFORMATION:	Xaa = any amino acid														
299	<400>	SEQUENCE:	4														
300	Met	Ala	Ser	His	Ile	Val	Gly	Tyr	Pro	Arg	Met	Gly	Pro	Lys	Arg	Glu	
301	1				5				10					15			
303	Leu	Lys	Phe	Ala	Leu	Glu	Ser	Phe	Trp	Asp	Gly	Lys	Ser	Ser	Ala	Glu	
304					20				25					30			
306	Asp	Leu	Gln	Lys	Val	Ala	Ala	Asp	Leu	Arg	Ser	Ser	Ile	Trp	Lys	Gln	
307					35				40					45			
309	Met	Ala	Gly	Ala	Gly	Ile	Lys	Tyr	Ile	Pro	Ser	Asn	Thr	Phe	Ser	Phe	

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/989,339

DATE: 06/10/2002
TIME: 15:44:02

Input Set : A:\BB-1067USCNT SEQ LST corrected.txt
Output Set: N:\CRF3\06102002\I989339.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; N Pos. 460,2398,2442
Seq#:4; Xaa Pos. 132
Seq#:7; N Pos. 344,367,433,452,473,474
Seq#:8; Xaa Pos. 98,117,120
Seq#:9; N Pos. 219,254,300,319,331,335,338,348,350,360,413,416,424,428,440
Seq#:9; N Pos. 455,469,473,484,504,506,526,533,535,552,568,580,598,600,606
Seq#:9; N Pos. 613
Seq#:10; Xaa Pos. 8,72,73,84,100,106,110,112,116
Seq#:55; N Pos. 1461,1464,1465

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/989,339

DATE: 06/10/2002
TIME: 15:44:02

Input Set : A:\BB-1067USCNT SEQ LST corrected.txt
Output Set: N:\CRF3\06102002\I989339.raw

L:15 M:270 C: Current Application Number differs, Replaced Application Number
L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:420
L:286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:2340
L:287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:2400
L:324 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:128
L:676 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:300
L:677 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:360
L:678 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:420
L:719 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:96
L:722 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:112
L:889 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:180
L:890 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:240
L:891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:300
L:892 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:360
L:893 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:420
L:894 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:480
L:895 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:540
L:896 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:600
L:944 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:956 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:64
L:959 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:80
L:962 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:96
L:965 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:112
L:2148 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:1440